$12.9B, 4.5 acres: Navy's next-generation aircraft carrier
11 November 2016, by Steve Mcmillan, Nathan Griffiths And Steve Helber

In this April 27, 2016 photo, USS Gerald R. Ford is stationed at Newport News Shipbuilding in Newport News, Va. The $12.9 billion warship, the first of the Navy's next generation of aircraft carriers, is in the final stages of construction after cost overruns and a delay of more than one year. This carrier and those that will follow are being built to replace the Nimitz-class carriers, which were first commissioned in 1975. (Photo/Steve Helber)

The Navy refers to its newest aircraft carrier, the USS Gerald R. Ford, as "4.5 acres of sovereign U.S. territory." The $12.9 billion warship—the first of the Navy's next generation of aircraft carriers—is in the final stages of construction after cost overruns and a delay of more than one year.

This carrier and those that will follow, including the USS John F. Kennedy and the USS Enterprise, will replace the Nimitz-class carriers, which were first commissioned in 1975. Construction on the Ford started in 2009 and on the Kennedy in 2015. Construction is scheduled to start on the Enterprise in 2018, but that could be pushed back.

The Ford—sitting now at Newport News Shipbuilding, the giant Navy contractor in Virginia—will house about 2,600 sailors, 600 fewer than the Nimitz-class carriers. The Navy says that will save more than $4 billion over the ship's 50-year lifespan. The air wing to support the Ford could add more personnel to the ship, which is designed to house more than 4,600 crew members.

The Navy had hoped to begin testing the Ford's systems and equipment during sea trials this fall. But those tests and a delivery date have been delayed as work continues on some of the vessel's new technology, such as its power generation system, aircraft landing equipment and advanced weapons elevators.

Construction was supposed to be completed by September 2015, with a cost cap of $10.5 billion. The Navy has attributed delays and cost overruns to the ship's state-of-the-art systems and technology.

In this April 14, 2016 photo, Navy Seaman Channing Mack, from Pennsylvania, paints a link of an anchor chain during a tour of the nuclear powered aircraft carrier USS Gerald R. Ford at Newport News Shipbuilding in Newport News, Va. The $12.9 billion warship, the first of the Navy's next generation of aircraft carriers, is in the final stages of construction after cost overruns and a delay of more than one year. (AP Photo/Steve Helber)
Capt. Richard McCormick took command of the Ford last spring and will be at the helm for sea trials when they are scheduled.

The ship's destination once it's delivered to the Navy? "Bottom line is that when the ship is ready for deployment, we will go where the boss tells us to go," McCormick says.

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TECHNOLOGY

In this April 14, 2016 Navy fireman David Ortiz, of Los Angeles, works out in a gym during a tour of the nuclear powered aircraft carrier USS Gerald R. Ford at Newport News Shipbuilding in Newport News, Va. Below deck on the ship is a maze of steel hatches and heavily plated hallways that descend 11 levels, revealing the workings of a small city – a medical ward, barber shops, fitness centers, living quarters, fire stations and more. (AP Photo/Steve Helber)

The vessel includes electromagnetic launch systems for jets and drones, replacing steam catapults; a smaller island that sits farther back on the ship, making it easier and quicker to refuel, re-arm and relaunch planes; and a nuclear power plant designed to allow cruising speeds of more than 30 knots and operation for 20 years without refueling.

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ANCHOR ROOM AND HANGAR BAY

This April 14, 2016 photo shows the Captain's, with a view of the flight deck from the bridge of the nuclear powered aircraft carrier USS Gerald R. Ford at Newport News Shipbuilding in Newport News, Va. The Navy refers to its newest aircraft carrier, the USS Gerald R. Ford, as "4.5 acres of sovereign U.S. territory." (AP Photo/Steve Helber)

The Ford weighs close to 100,000 tons and getting it to rest dead in the water requires some serious stopping power. Hours of planning go into dropping anchor, but when the brake is released and the anchor starts to drop, it happens fast: 90 feet of chain can pay out in 5 seconds.

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CAPTAIN'S CABIN

The in-port cabin reflects the life and career of the ship's namesake, President Gerald R. Ford. Besides living quarters, the cabin serves as a ceremonial receiving location for distinguished guests and as an area for the captain to welcome new sailors aboard. Morning meetings are held in the suite's boardroom.

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In this April 14, 2016, Navy Culinary Spc. Alicia Pitts, delivers pizza to the chow line during a tour of the nuclear powered aircraft carrier USS Gerald R. Ford at Newport News Shipbuilding in Newport News, Va. Below deck on the ship is a maze of steel hatches and heavily plated hallways that descend 11 levels, revealing the workings of a small city – a medical ward, barber shops, fitness centers, living quarters, fire stations and more. (AP Photo/Steve Helber)

DAILY LIFE

Below deck on the ship is a maze of steel hatches and heavily plated hallways that descend 11 levels, revealing the workings of a small city – a medical ward, barber shops, fitness centers, living quarters, fire stations and more.

Routine tasks are punctuated aboard the Ford with "general quarter" drills: Sirens blare and sailors scramble to defensive positions, sealing hatches and assembling near repair lockers.

In this April 14, 2016 photo, firefighting equipment hangs ready during a tour of the nuclear powered aircraft carrier USS Gerald R. Ford at Newport News Shipbuilding in Newport News, Va. The Navy refers to its newest aircraft carrier, the USS Gerald R. Ford, as "4.5 acres of sovereign U.S. territory." (AP Photo/Steve Helber)
In this April 14, 2016, Navy doctor Kim Toone, front, gestures in an operating room during a tour of the nuclear powered aircraft carrier USS Gerald Ford at Newport News Shipbuilding in Newport News, Va. The $12.9 billion warship, the first of the Navy’s next generation of aircraft carriers, is in the final stages of construction after cost overruns and a delay of more than one year. This carrier and those that will follow are being built to replace the Nimitz-class carriers, which were first commissioned in 1975. (AP Photo/Steve Helber)

In this April 14, 2016 photo, shipyard worker Anthony Diggs, of Newport News, Va., works on a flight deck light during a tour of the USS Gerald R. Ford at Newport News Shipbuilding in Newport News, Va. The Navy refers to its newest aircraft carrier, the USS Gerald R. Ford, as “4.5 acres of sovereign U.S. territory.” (AP Photo/Steve Helber)

In this April 14, 2016 photo, a crew member looks over maintenance records in the shower area during a tour of the nuclear powered aircraft carrier USS Gerald R.Ford at Newport News Shipbuilding in Newport News, Va. Below deck on the ship is a maze of steel hatches and heavily plated hallways that descend 11 levels, revealing the workings of a small city — a medical ward, barber shops, fitness centers, living quarters, fire stations and more. (AP Photo/Steve Helber)
In this April 27, 2016 photo, USS Gerald R. Ford is stationed at Newport News Shipbuilding in Newport News, Va. The $12.9 billion warship, the first of the Navy’s next generation of aircraft carriers, is in the final stages of construction after cost overruns and a delay of more than one year. This carrier and those that will follow are being built to replace the Nimitz-class carriers, which were first commissioned in 1975. (Photo/Steve Helber)

This April 14, 2016 photo, shows the interior of the captains in-port cabin, adorned with memorabilia provided by the family of the late President Gerald R. Ford, during a tour of the USS Gerald R. Ford at the Newport News Shipbuilding in Newport News, Va. The $12.9 billion warship, the first of the Navy’s next generation of aircraft carriers, is in the final stages of construction after cost overruns and a delay of more than one year. This carrier and those that will follow are being built to replace the Nimitz-class carriers, which were first commissioned in 1975. (AP Photo/Steve Helber)